

MRSA/CDI Prevention Initiative

Helping to Train the Healthcare Professional

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MRSA/CDI Prevention Initiative

- Surveillance of Healthcare-Associated and Resistant Pathogens (SHARP) Unit
- Located within the Surveillance and Infectious Disease Epidemiology Section (SIDE) at the Bureau of Disease Control, Prevention, and Epidemiology of the Michigan Department of Community Health
- www.michigan.gov/hai

MRSA: Organism and Infections

(Methicillin-resistant *Staphylococcus aureus*)

- A strain of *Staphylococcus aureus* that is resistant to certain antibiotics called beta-lactams
- A cluster forming bacteria
- MRSA infections
 - Mild: skin and soft tissue
 - usually community acquired
 - More severe: pneumonia or septicemia.

MRSA: Symptoms and Risk Factors

- Symptoms based on infected body site(s)
- Biggest risk factor is open or broken skin (e.g. wound or surgical site)
- High risk in people:
 - With underlying health conditions
 - Who have been in the hospital or a nursing home
 - Who have been treated with antibiotics

MRSA: Transmission and Treatment

- Transmission is person-to-person by contaminated hands and surfaces
- Treatment varies by type and location of infection
- Incision and drainage common for purulent skin infections
- Antibiotic treatment
 - guided by susceptibility profile of the organism

MRSA Burden

- Recent estimates suggest that 49-65% of healthcare-associated *S. aureus* infections reported to the National Health and Safety Network (NHSN) are caused by methicillin-resistant strains
- National population-based estimates of invasive MRSA infections
 - 94,360 invasive MRSA infections annually in the US
 - Associated 18,650 deaths each year
 - 86% of all invasive MRSA infections are healthcare-associated

• Hidron et al. Infect Control Hosp Epidemiol 2008;29:996-1011
 • Klevens et al. JAMA 2007;298:1763-71

CDI: Organism and Symptoms (*Clostridium difficile*) Infection

- *Clostridium difficile* (C. diff) is a positive, anaerobic, toxin-producing, spore-forming bacteria.
- Leading cause of infectious diarrhea in healthcare settings.
- CDI illness symptoms:
 - Watery diarrhea
 - Fever
 - Loss of appetite
 - Nausea
 - Abdominal pain/tenderness

CDI and You

- Lives in the intestinal tract of humans and animals
- Can be found in the intestines of healthy people
- Is usually kept under control by other normal bacteria
- Normal bacteria die with antibiotic use allowing C. diff to multiply and produce toxins
- Causes diarrhea or inflammation of the colon

CDI Burden

- 94% are related to health-care exposures and are potentially preventable by reducing unnecessary antibiotic use and interrupting patient-to-patient transmission
- Nearly 75% of all CDIs related to U.S. health care have an onset outside of hospitals
- 52% of the CDIs treated in hospitals are present on admission

• CDC MMWR Vital Signs March 9, 2012 61(09):157-162

The Case for HAI Elimination

- 1 in 20 patients have an infection while receiving healthcare treatment in US hospitals
- Nationally, there are approximately 1.7 million long-term care beds in which 1.6 to 3.8 million infections are estimated to occur annually
- Infections in long-term care residents may account for between 23,100 to 70,000 deaths annually in the US.

MRSA/CDI Prevention Collaborative

Established September 28, 2011 and includes representation from:

- MDCH
- Michigan Society for Infection Prevention and Control (MSIPC)
- Michigan Health and Hospital Association(MHA) Keystone Center for Patient Safety and Quality
- MPRO (Michigan's quality improvement organization)
- Long Term Care
- Michigan Association of Local Public Health (MALPH)

MRSA/CDI Prevention Collaborative Goal

- The Collaborative works to integrate evidence based best practices along the continuum of care to reduce and eliminate the occurrence of MRSA and CDI among Michigan citizens

The Initiative Focus

- Acute care and skilled nursing care facilities can work together to reduce MRSA and CDI among patients that share the health care services provided within their regions
- Recognize the benefits of improving transfer of care communication
- Build collaborative community relationships with focus on sharing best practices to prevent and reduce MRSA and CDI infections



The Data Plan

- Data collected monthly
- MRSA and CDI laboratory identified (LabID) event and summary data
 - Acute care facilities submit electronically via National Health and Safety Network (NHSN)
 - Skilled nursing facilities submit (secure) fax form that mirrors the NHSN data collection tool
- 6 months of baseline data and 18 months follow up data being collected
- Monthly reports provided back to facilities

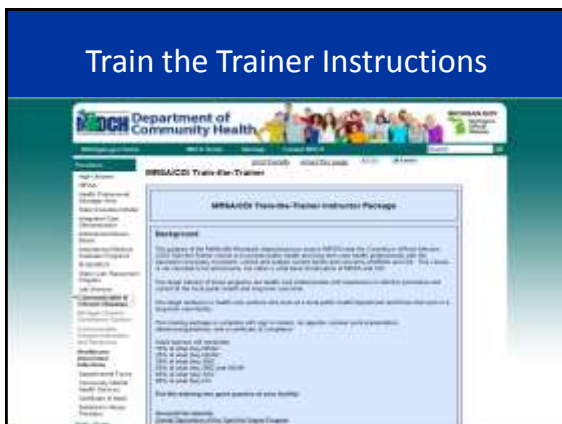
Champion Conference Calls

- Quarterly calls
- Webinar format
- Champions give presentations, share policies, and/or resources used in their action plans
- Calls provide networking between the champions

MRSA and CDI Train the Trainer Package Available at www.michigan.gov/hai

- Intended audience
 - Local public health departments
 - Skilled nursing facilities
- Package includes
 - Handouts
 - Sign in sheets
 - Pre- and post-presentation quiz
 - Power Point Presentation
 - Resources and Websites

Train the Trainer Instructions



Train the Train: MRSA



Train the Trainer: CDI



MRSA Training Resources



[illegible]

[illegible]

Educate! Educate! Educate!

- Educate yourself on MRSA and CDI
- Educate others on MRSA and CDI
- Be a community resource with appropriate information
- Take advantage of opportunities to participate infection control meetings
- Be recognized as an “expert” source of information to your community health care providers

Education and Training



Thank you!

- To find out more information:

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